

Amendments to the Claims:

This listing of claims will replace, without prejudice, all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for detecting and reducing noise in a battery voltage signal comprising:

measuring the battery voltage signal at a predefined sampling rate to provide measured values;

storing the measured values in a buffer memory; and
checking whether a number of the measured values stored in the buffer memory has reached a threshold value;

forming a median value of the stored measured values in a time-slot pattern slower than the sampling rate to obtain an averaged signal value if the number of values stored in the buffer memory has reached the threshold value; and

compensating for noise in the measured values using the median value.

2. (Currently Amended) The method according to claim 1, further comprising phase compensating the averaged median signal value.

3. (Original) The method according to claim 2, wherein the phase compensation includes a compensation algorithm of the form:

$$y(k)=x(k)+\frac{1}{2}*[x(k)-x(k-1)],$$

$x(k)$ being a battery voltage value at an instant k averaged by forming a median, $x(k-1)$ being a battery voltage value at an instant $k-1$ averaged by forming a median, and $y(k)$ being a compensated averaged battery voltage value at the instant k .

4. (Canceled)

5. (Canceled)

6. (Currently Amended) A device for detecting and reducing noise in a battery voltage signal comprising:

means for measuring the battery voltage signal of a predefined sampling rate to provide measured signal values;

means for storing the measured signal values; and

means for checking whether a number of the measured values stored in the means for storing has reached a threshold value; and

means for forming a median value of the stored measured signal values in a time-slot pattern slower than the sampling rate to obtain an averaged signal value if the number of values stored in the buffer memory has reached the threshold value.

7. (Original) The device according to claim 6, wherein the means for storing includes a ring memory.

8. (Canceled)

9. (Canceled)